

### Abstract of the Disclosure

An initializing method for Very high bit rate Digital Subscriber Line (VDSL), including adjusting tone spaces, and a system supporting the method are provided. The method includes: (a) handshaking for exchanging basically  
5 needed information between the two stations in a first one space mode, and for determining whether or not each of the two stations supports a second tone space; (b) switching the first tone space mode to the second tone space mode by detecting a short loop in each of the two stations for adjusting a tone space when it is determined in step (a) that each of the two stations supports the  
10 second tone space; and (c) exchanging information actually needed in data communications between the two stations in the second tone space mode for an actual initialization. When a 8.625kHz tone space is used, a data communications link can be established with only one initialization process through the ES process according to the method and accordingly time for  
15 initialization is greatly reduced. In addition, since some identical signals used in the prior art actual initialization process are also used in the ES process, which is an intermediate process, additional hardware is not needed and in software aspect, it is easy to implement the system.